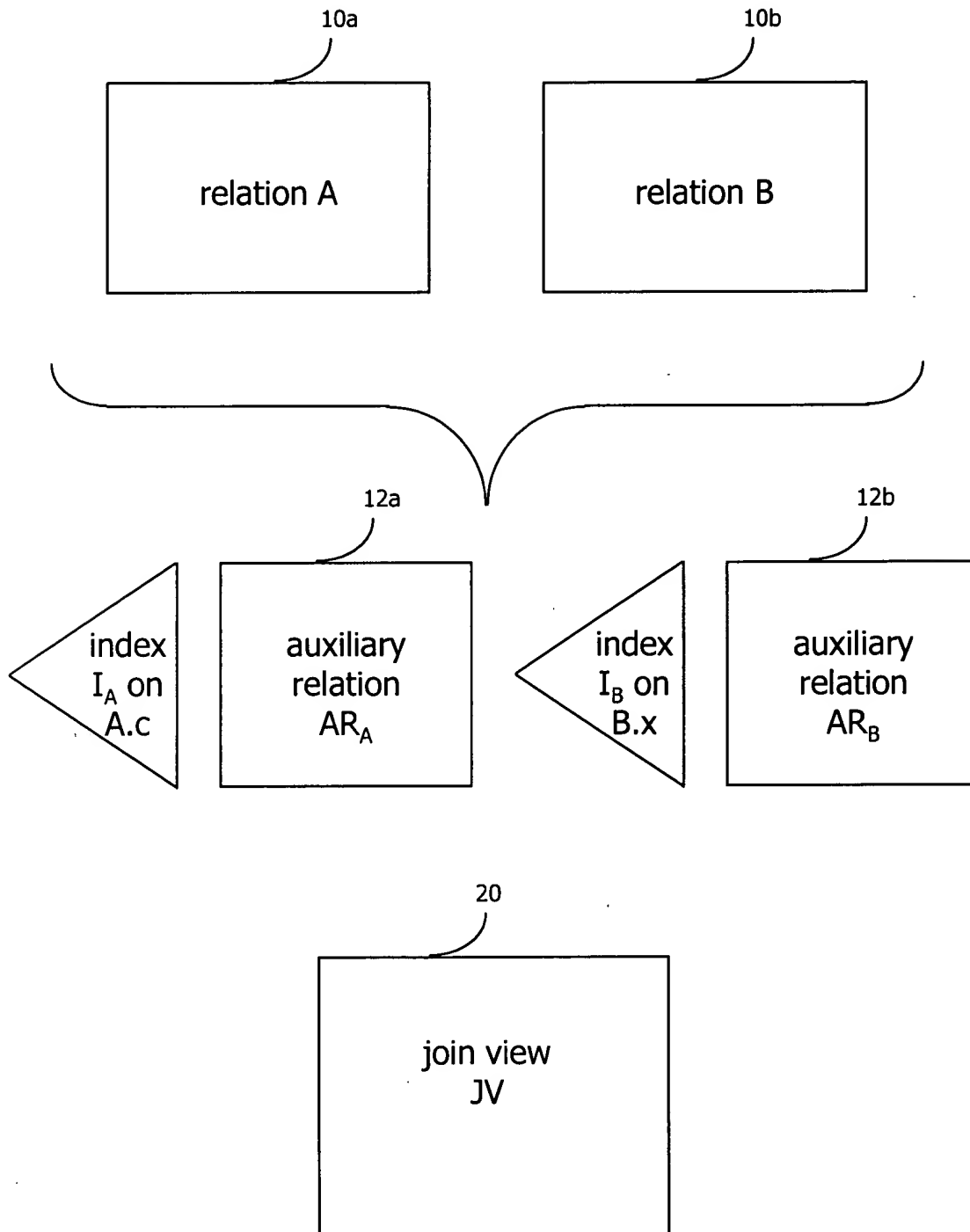


Figure 1



09900280.070601

Figure 2

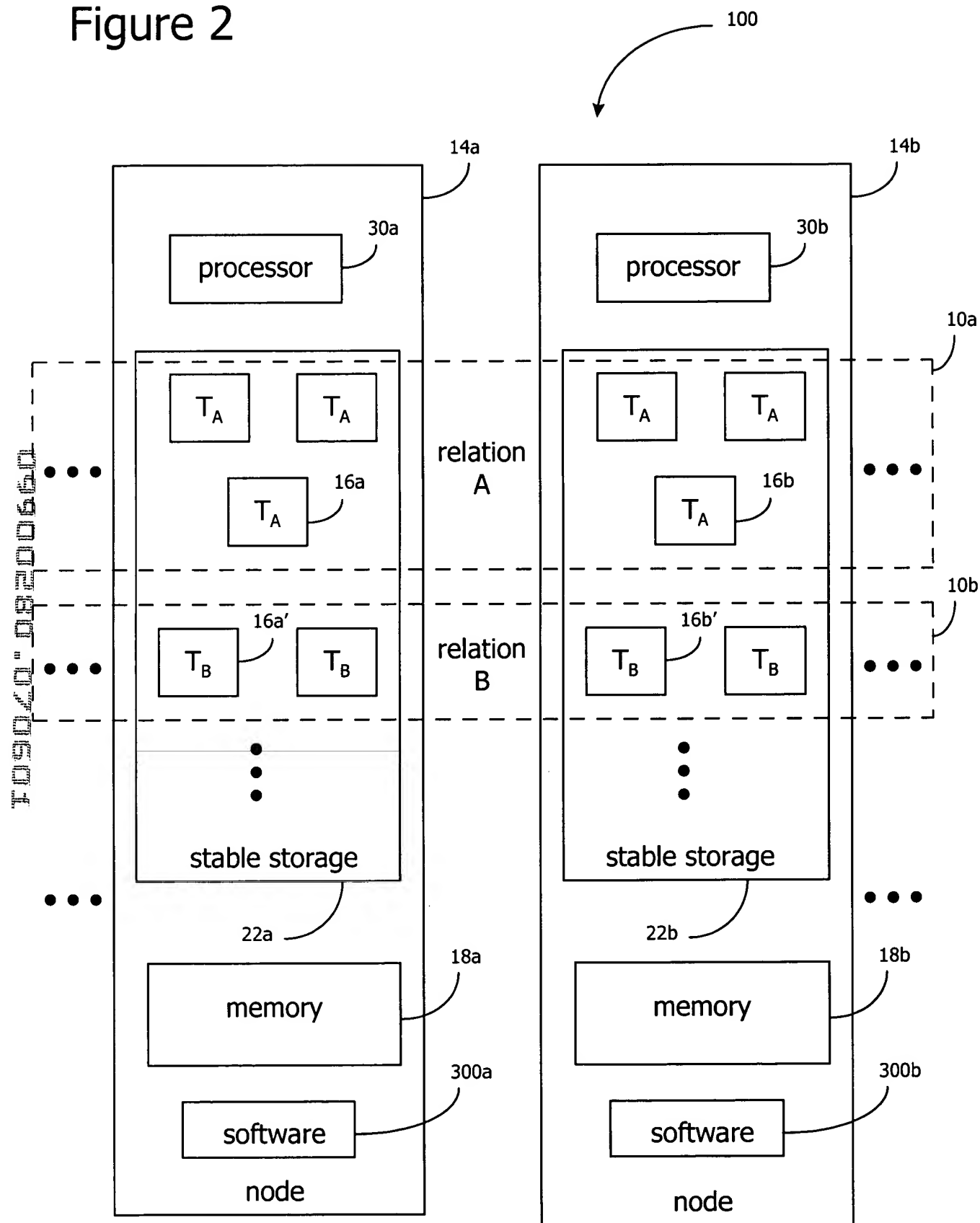


Figure 3

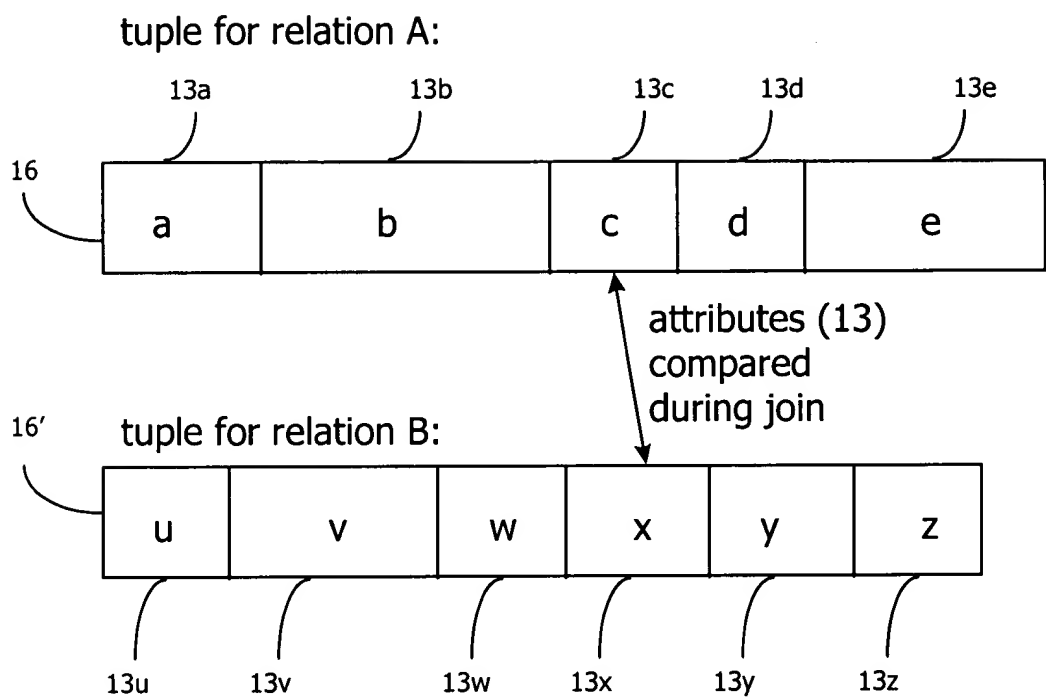


FIG. 3 is a diagram illustrating a join operation between two relations, A and B. Relation A has five attributes labeled 13a through 13e, with values a, b, c, d, and e respectively. Relation B has six attributes labeled 13u through 13z, with values u, v, w, x, y, and z respectively. A double-headed arrow points from attribute 13c of relation A to attribute 13x of relation B, with the text 'attributes (13) compared during join' indicating that these two attributes are being compared for a join condition. Reference numerals 16 and 16' point to the tuples of relation A and relation B respectively.

Figure 4

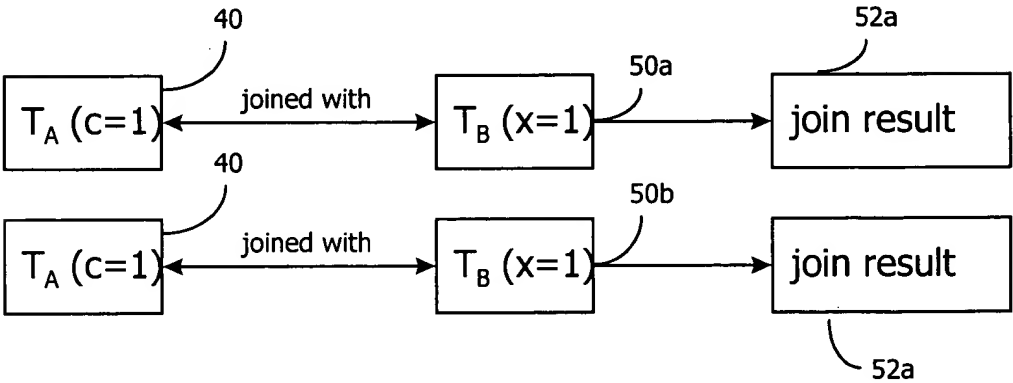
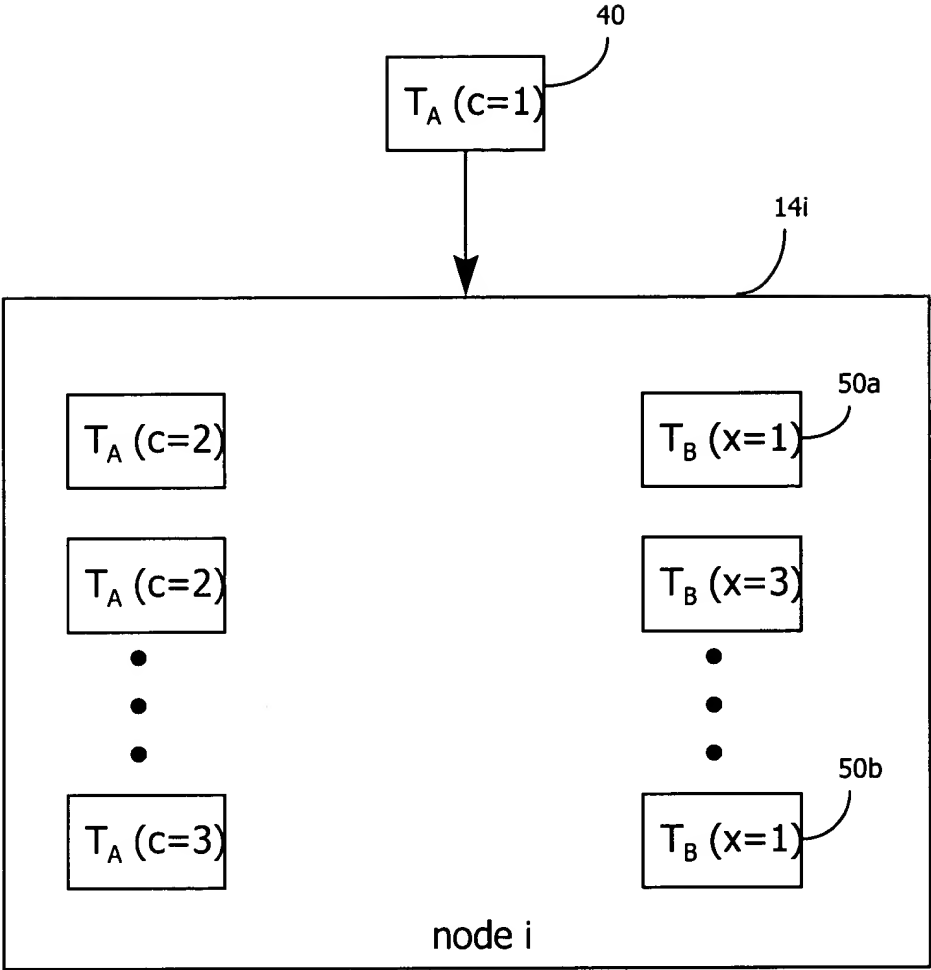
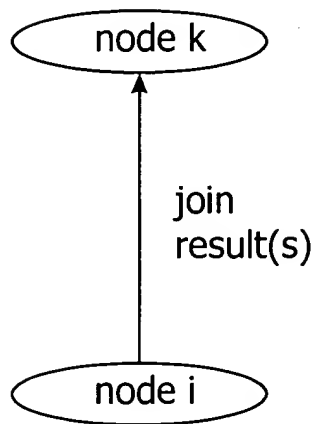


Figure 5A

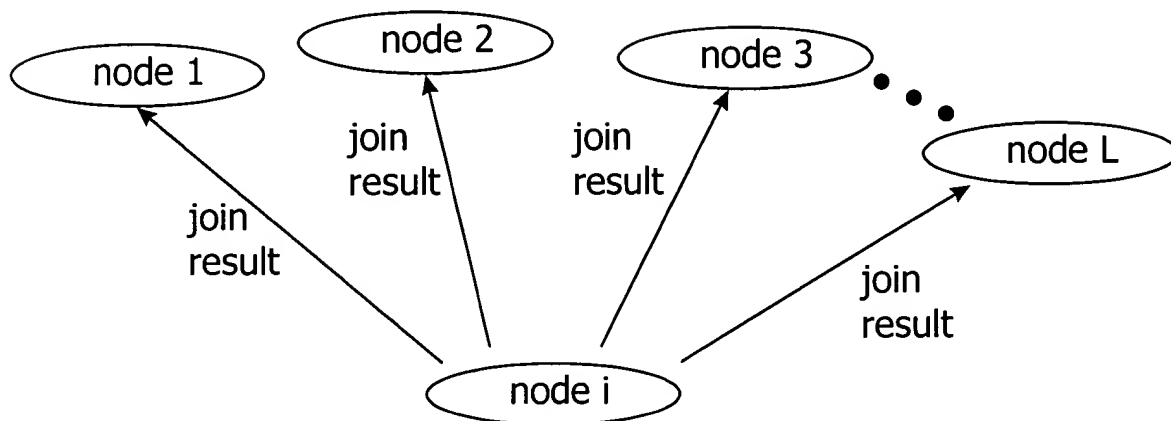


k) join result(s) inserted into join view JV

i2) T_A joined with $T_B(s)$ to produce join result(s)

i1) T_A stored in relation A

Figure 5B



0900280.07501
T09070.0820050

Figure 6A

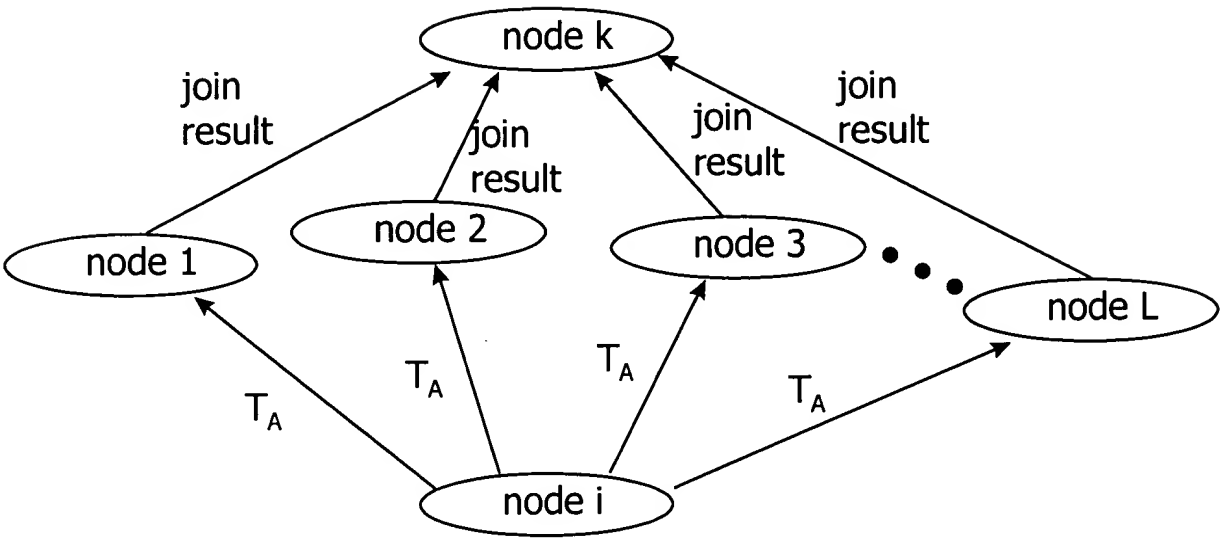


Figure 6B

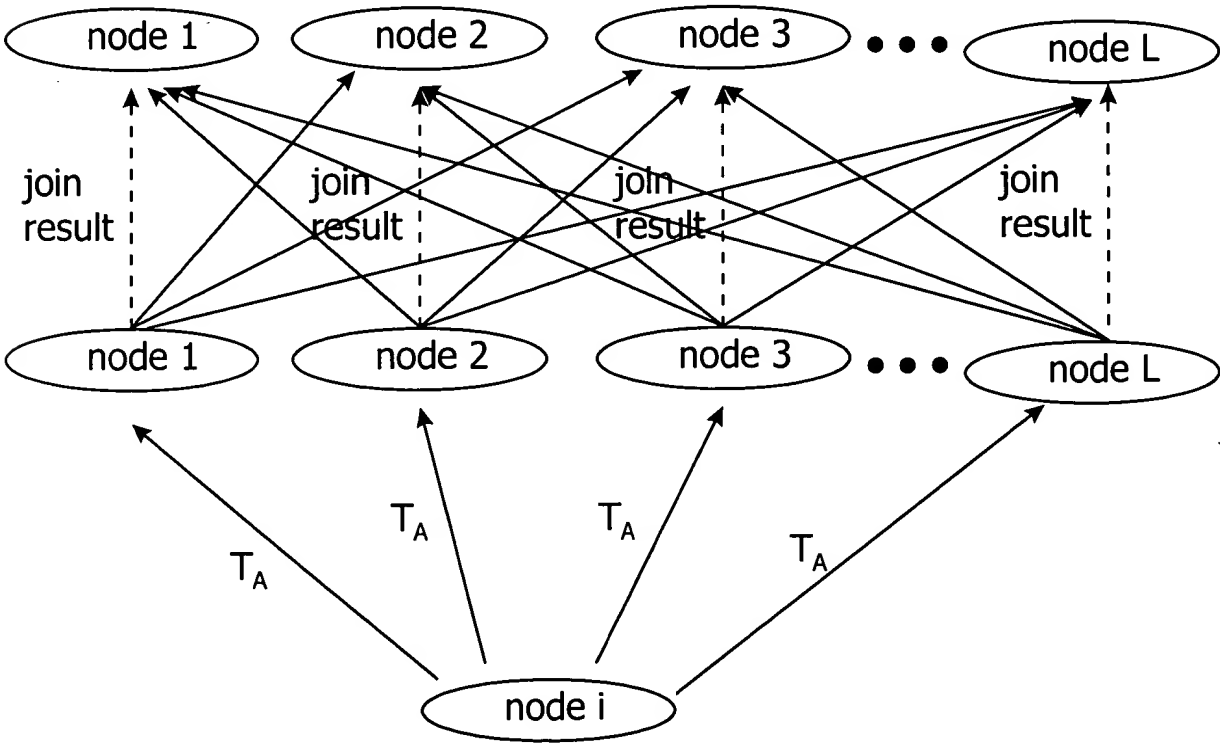


Figure 7A

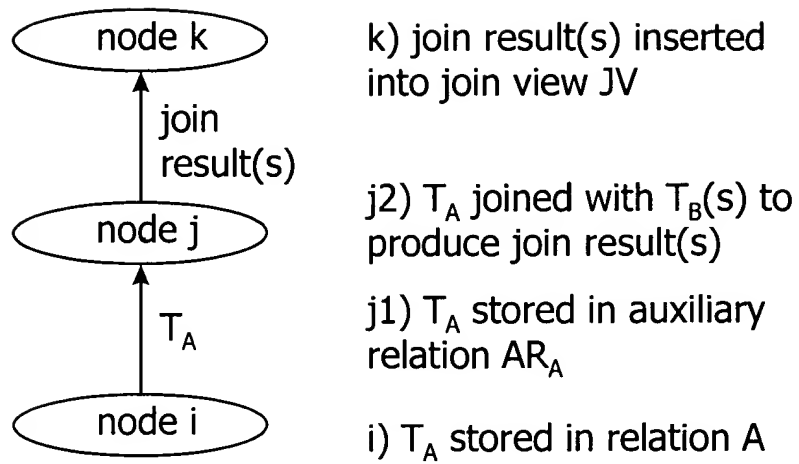
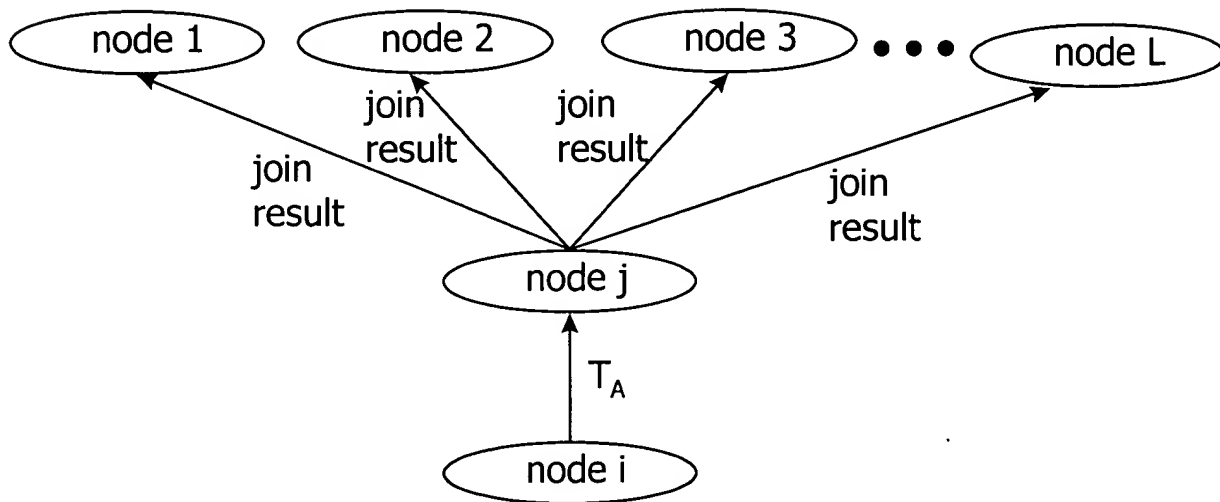


Figure 7B



109020-08200660

Figure 8

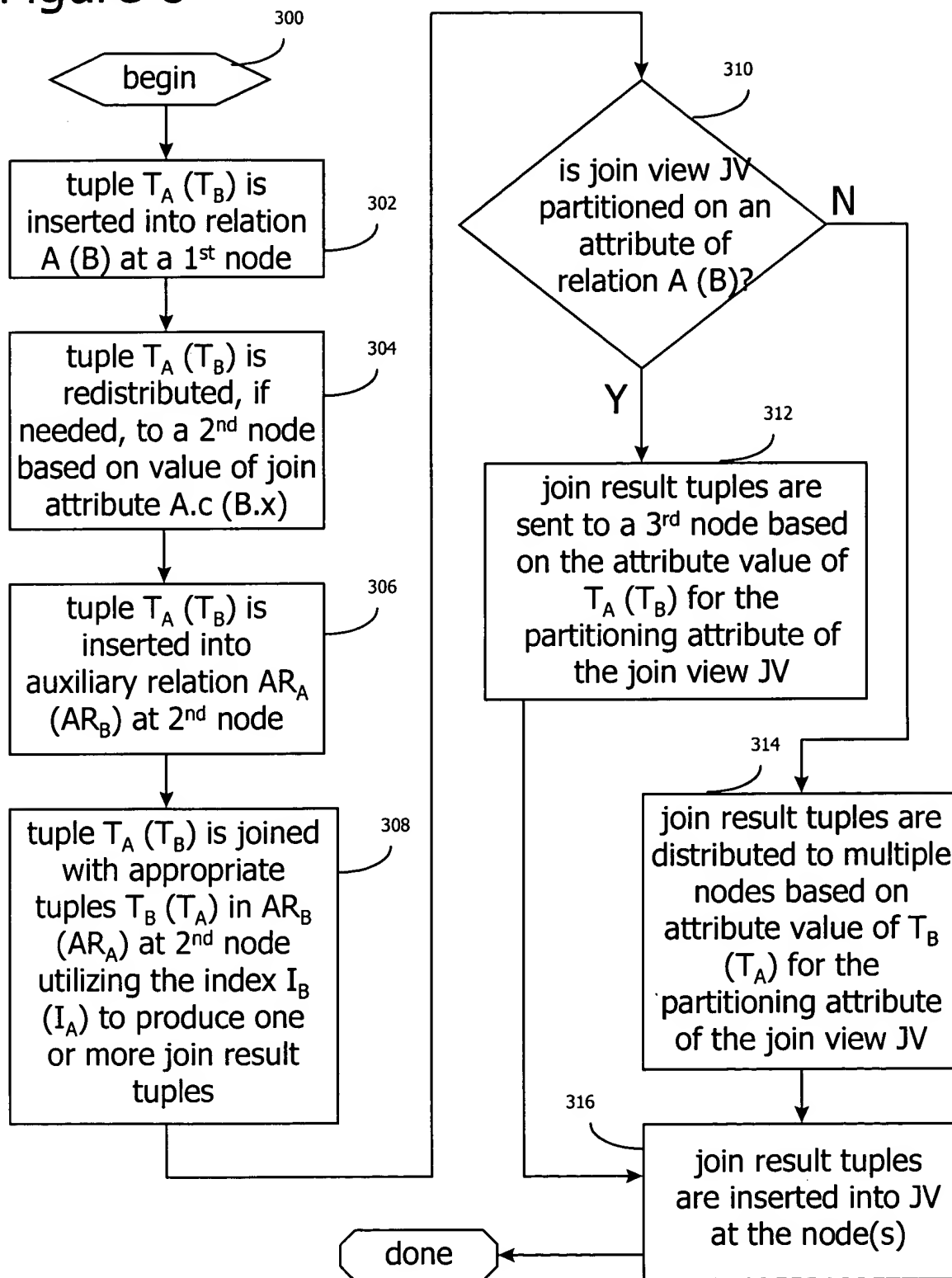
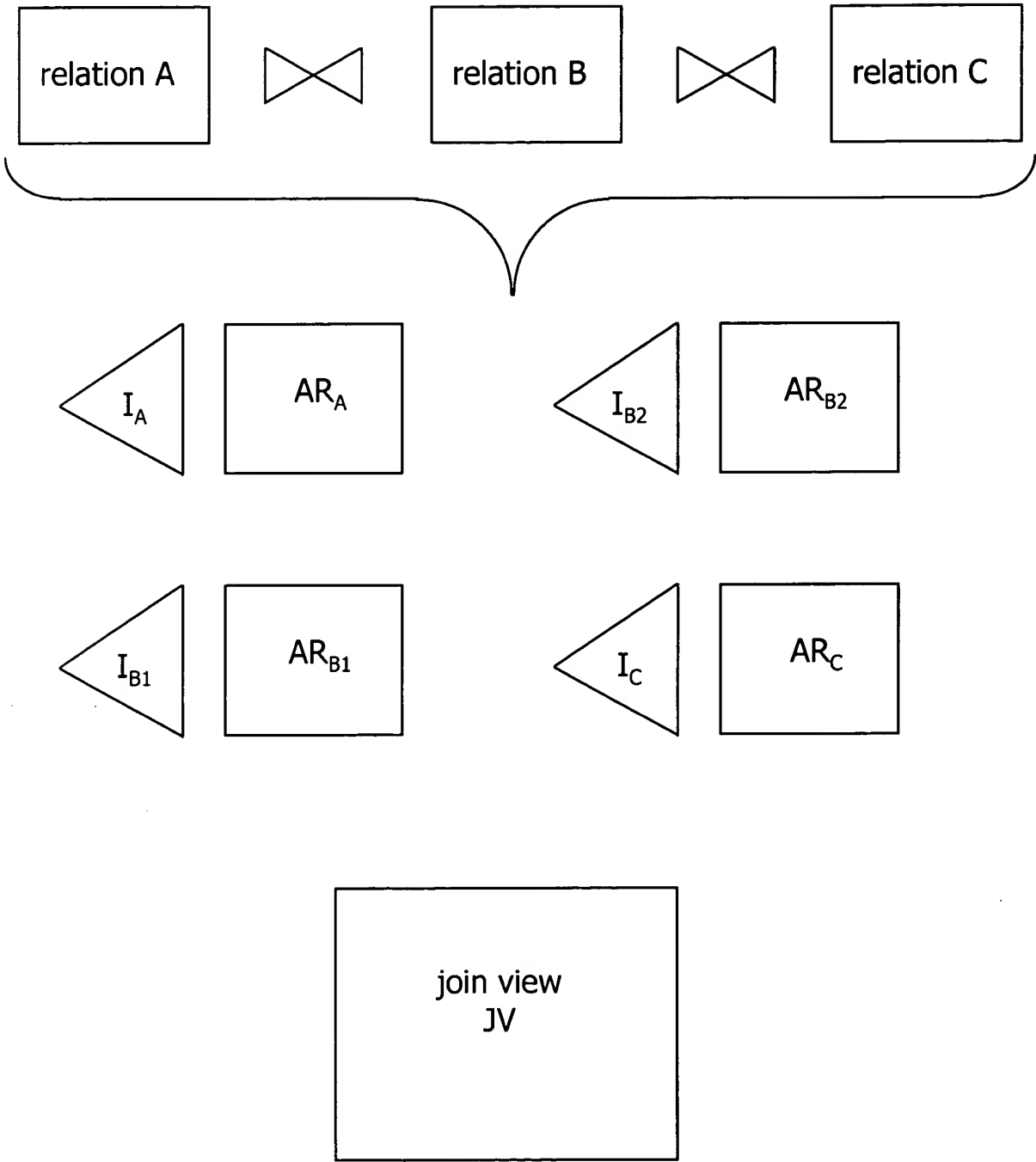


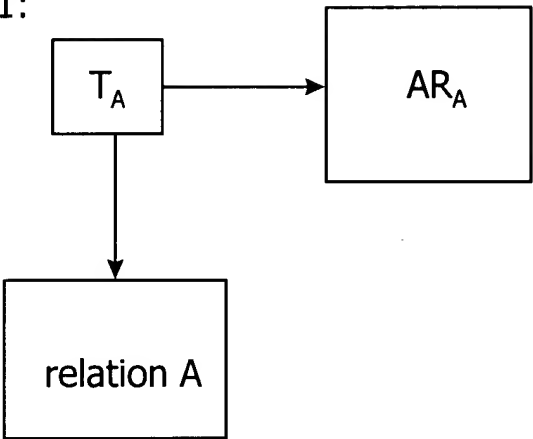
Figure 9A



TOP SECRET

Figure 9B

stage 1:



stage 2:

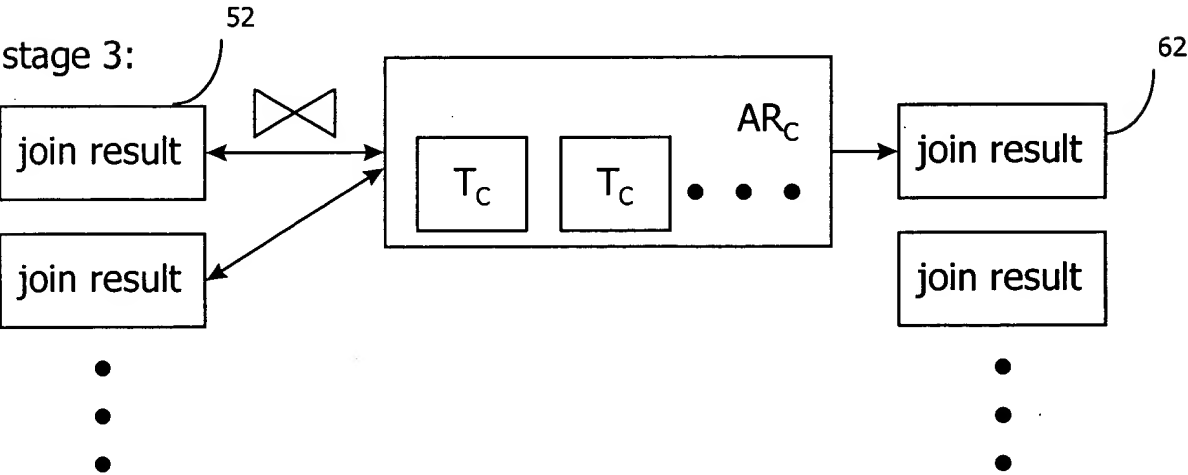
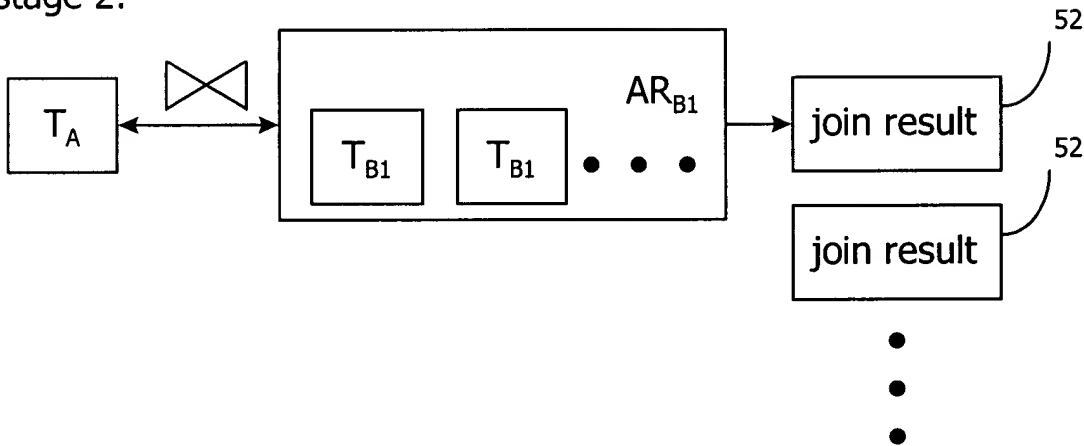
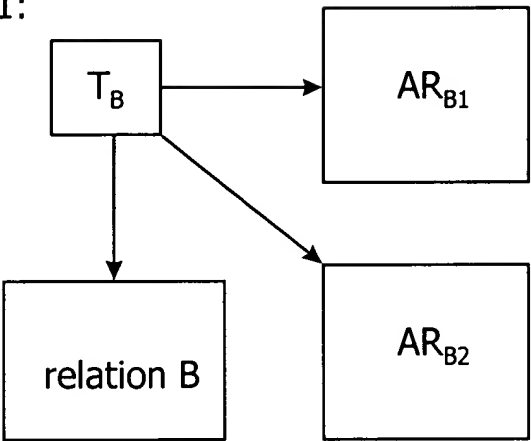


Figure 9C

stage 1:



stage 2:

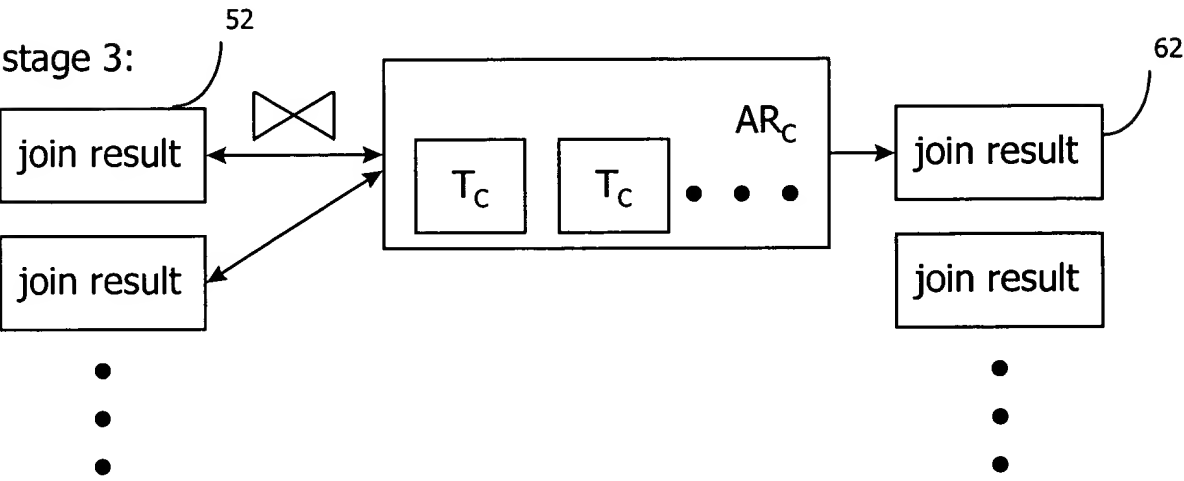
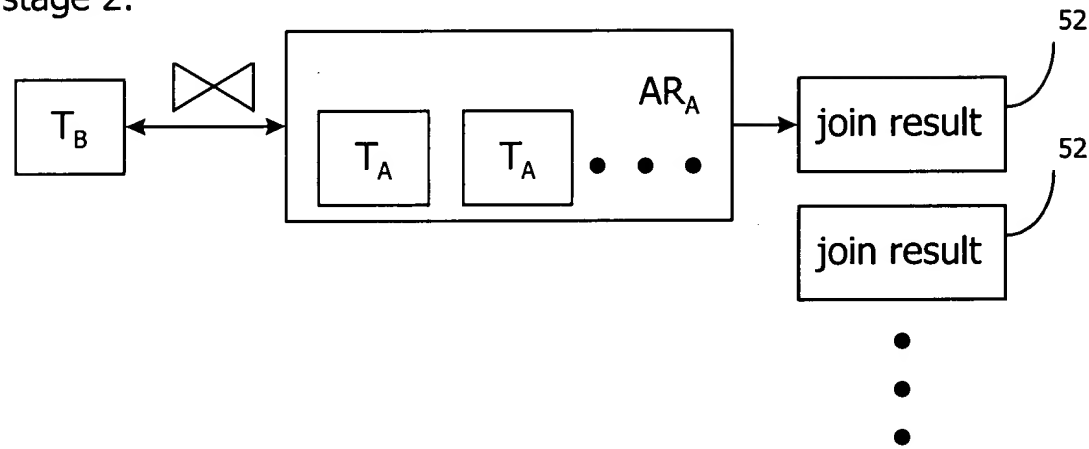
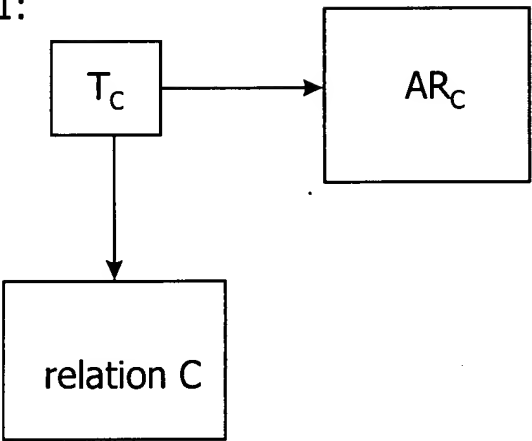
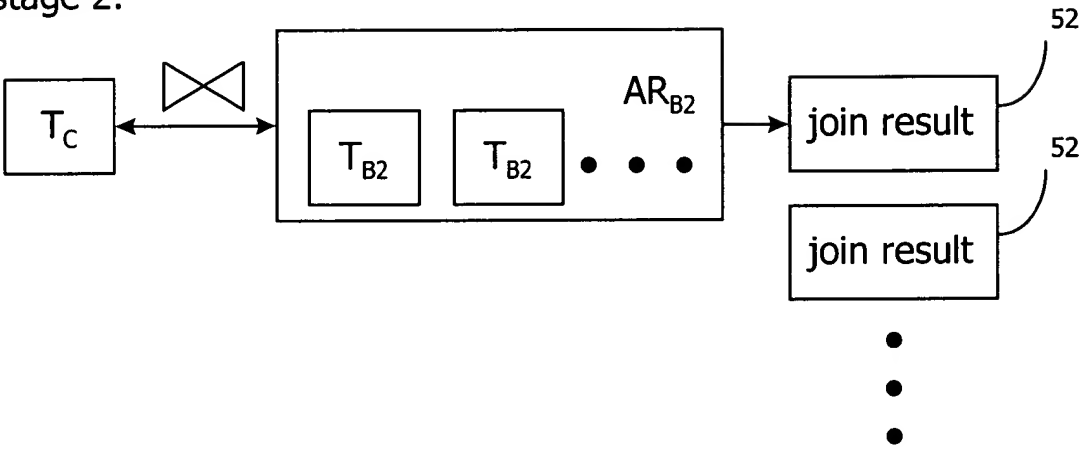


Figure 9D

stage 1:



stage 2:



stage 3:

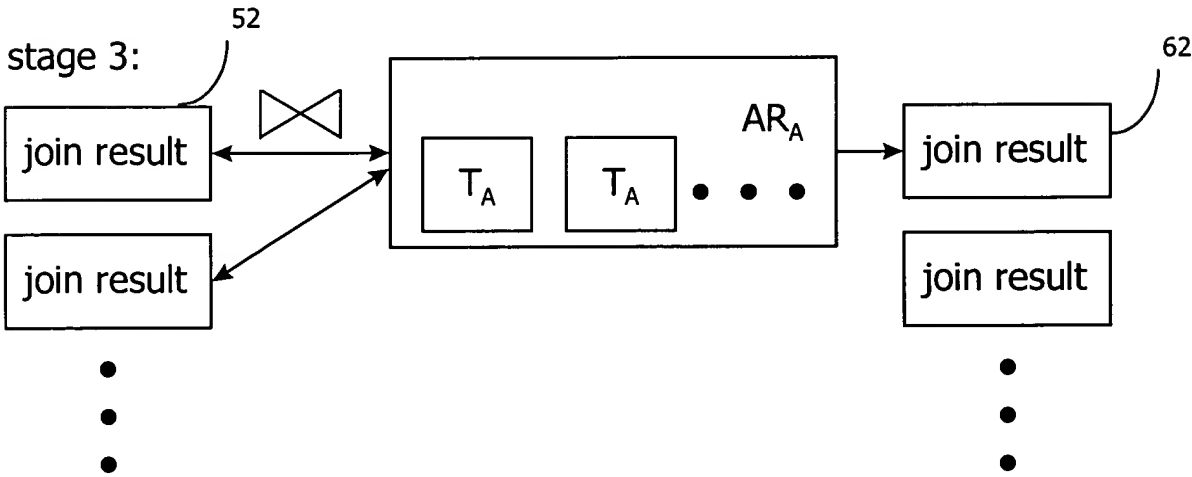


Figure 10

T09020" 08200660

